GEORGE BROWN COLLEGE

George Brown News

A newsletter for staff, faculty and alumni of George Brown College

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Research projects enhance education and careers

Fashion student Angella Mackey is spending months helping design a garment that will never make a runway show – but could help save lives. She's part of a multi-disciplinary George Brown research team developing an electronics-embedded vest that can continuously monitor a wearer's heart – making it fast and easy for medical staff to check heart history and address problems. "I never thought I'd be working on something like this," she says. Led by fashion professor Marsha Jorgensen, the team also includes Collaborative Nursing program student Gita McAllister and Mechanical Engineering Technology student Ken Mantle.

Funded by a government research grant and a private sector partner, the team was given the task of developing a comfortable garment with built-in electronics that patients could wear under their clothes for up to 23 1/2 hours a day and up to 30 days at a time.

That's no small order: their prototype is only the first step. They're now sourcing miniature electronic components to build into it and developing ways to ensure proper contact of electrodes that pick up electronic activity in the body, as well as tackling the problems of creating adjustable designs for men and women.

The team meets weekly to share skills in their fields as they work their way through the steps of development and testing of the vest. "It's all about integrating the electronics, apparel and medical," says Jorgensen, who is drawing on previous project management experience to lead the two-year project.

Projects like this one – potentially involving hundreds of staff and students – are likely to become more common as George Brown reinforces its position as a national college leader in applied research, says Robert Luke, Director of George Brown's Office of Applied Research.

George Brown's position as a research leader got a big boost recently when the Natural Sciences and Engineering Research Council of Canada (NSERC) gave it $2.3 million to support applied research projects at the college with private sector partners. (See Research Projects story on this page for details.) NSERC funds will be matched by funding or "in kind" support by the college and private/public sector partners. More importantly, the NSERC grant

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Mechanical Engineering Technology student Ken Mantle models a prototype of a garment that monitors heart activity. He's part of a research team led Fashion professor Marsha Jorgensen (left) that also includes (from left) Collaborative Nursing program student Gita McAllister and Fashion student Angella Mackey. The amount of applied research underway at George Brown is growing – enhancing education and careers for students and staff.

Our 10 NSERC-funded research projects

The following George Brown research projects received Natural Sciences and Engineering Research Council of Canada (NSERC) funding. All projects involve partners and additional funding or "in kind" support by the college and partners. Some project details and partners are not public because of confidentiality agreements.

1. Diabetic Foot Neuropathy Testing/ Monitoring Device – Design and development of a simple and reliable device to test foot neuropathy (nerve damage) in diabetics, and to electronically transmit the test results to a clinician for diagnosis or monitoring purposes.

2. Health eHome – This project is an evolution of the GBC School of Design Canühome project that involves designing the Health eHome. Research and new insights will lead to advances in home care approaches, housing design and technologies that will promote and support healthy living, safety and quality-of-life for residents.

3. Personal Health Information Support – A Toronto firm and the Laboratory for Collaborative Diagnostics (LCD) at the University of Toronto will collaborate with GBC to develop small remote diagnostic medical devices for remote home care.

4. Heart Monitoring Vest – Development of a heart monitoring device that improves upon current FDA-approved heart monitors by using advanced algorithms that can compress electrocardiogram signals to take up less space, and transmit much faster and more conveniently.

5. "Energy Storage and Return" Lower Limb Orthosis – Research conducted with Clinical Orthotic Consultants, Inc. will assess a thermoplastic custom reinforced ankle-foot orthosis which can store and return mechanical energy in lower limbs.

6. Organic and Diabetic-Friendly Candies – Development of a commercially viable organic

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Research projects (continued from page 1)

could open doors for more research funding as it is a highly respected national research body, says Luke.

The Social Sciences and Humanities Research Council of Canada (SSHRC) has also recently granted George Brown institutional eligibility for research funding.

The Ontario Ministry of Research and Innovation recently granted $10 million to the Colleges Ontario Network for Industry Innovation (CONII). George Brown is a founding member of CONII.

George Brown is developing specialization in research in the following areas: health monitoring and other devices, health promotion/nutrition, and health informatics and support technologies. Projects in green technology are also being developed.

Research projects at the college enhance the education we offer students by giving faculty and students opportunities to solve real problems as part of course work, says Luke. Research allows faculty to develop new skills and maintain cutting-edge currency in their fields, while students working on the projects transfer classroom knowledge to practical problems and expand their employment horizons.

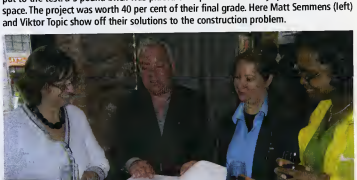
"We teach innovation literacy…It's an essential employment skill for the future. Our students learn research skills, problem solving, leadership and entrepreneurship skills, and the ability to recognize innovation in the product development lifecycle."

George Brown offers both private and public sector partners skills that cannot usually be found at other research institutions, he says. "We do what others can't. Our students are good at making things, and working alongside others in pursuit of innovation."

Jorgensen says the vest project she leads will allow her to teach her fashion classes about apparel that does more than just look good or protect the wearer from the weather. "It allows me to introduce the concept of the functional, industrial and medical uses of apparel."

The students on the project all say working on a real life project has been motivating and has expanded their career horizons."I want to design clothes that integrate electronics," says Mackey.

STRAW BRIDGE BUILDERS: Construction Engineering Technology students had to prove they understood the concepts taught in their Science of Architecture class by creating bridges out of plastic drinking straws and straight pins. The bridges were then put to the test: a 5 pound brick was placed on top of them as they spanned a two-foot space. The project was worth 40 per cent of their final grade. Here Matt Semmens (left) and Viktor Topic show off their solutions to the construction problem.



FACULTY PORTFOLIOS ON DISPLAY: Centre for Financial Services professor Terry McCullough (second from left) shows off the professional teaching portfolio he created over the past academic year to (from left) Fashion professor Edith Strasser, Hospitality professor Joanne Gellatly, and Preparatory Studies professor Denise Nelson-Mogaji at an event in April. Ten faculty members created portfolios this year that include collections of achievements, evaluations of their work, resources, as well as personal reflections on teaching. "The hard part is taking a look at yourself," says McCullough. Creating a portfolio, which was guided by Staff Development Faculty Facilitator Laz Simeon, was an enlightening process, says Child and Youth Worker professor Nicki Monahan. "It gave me an opportunity to reflect on teaching and learning." Technology professor Doug Walker created a thick binder. "It got me thinking about how I fit into the big picture of teaching and the big picture of the college," he said.

NSERC-funded projects (continued from page 1)

candy. These would utilize low glycemic index natural sweeteners that can potentially be diabetic friendly and appeal to a range of consumers, filling a market gap.

7. Sensory Evaluation and Ethnic Foods – Faculty and students from the Centre for Hospitality and Culinary Arts (CHCA) will work with researchers from the Advanced Food and Materials Network to help determine likes/dislikes and intensity of preference for various key ingredients/foods (e.g. level of sweetness of a sugar solution and ingredient liking such as garlic) that ultimately would be used, or are currently used, in food products.

8. Recipes for Diabetics – Faculty from the Centre for Hospitality and Culinary Arts (CHCS) are developing recipes for the Community Nutrition Teaching Model for Ethno-specific Diabetes Education and Prevention project. The pilot phase of the project has focused on members of the South Asian community.

9. Design and Efficacy Assessment of Pandemic/Emergency Preparedness and Response Management Toolkit – This web-based information management decision support tool, being developed with Tenet Computer Group project, is refining components of a web-based information management and decision support system for hospital pandemic/emergency preparedness and response management.

10. Real-Time Locating System: Research and development of a Real Time Locating System (RTLS) using Geographic Information System (GIS) technology developed by Infonaut, Inc., for use in healthcare and hospital settings. The project involves installing and implementing a GIS and RTLS infrastructure in the Simulated Practice Centre (SPC) at GBC's School of Nursing.

BELIEVABLE BEAUTY: That's the title Fashion student Andrea Tucker gave this winning lingerie set, inspired by 1920's art deco designer Erte, she designed for the Triumph Inspiration Award competition on April 1. Tucker will now fly to Milan, Italy in September to represent Canada in an international design competition. If she wins she'll get a $25,000 prize and will work with Triumph to create a marketable version of the lingerie. George Brown staff and students can support Tucker by voting for her design online which gives her a boost during judging. Go online to www.truimph-inspiration-award.com from Aug. 31 to Sept. 13

GBC Conference to focus on new instructional technology

When part-time professor Laurel Waterman was a graduate student her university professors would sometimes present her with a challenge – they would turn off the lights, put on a PowerPoint presentation and then lecture. So she had to decide to either make notes, listen to the lecture, or read the screens as they flashed past.

"You can't read, and listen, and write at the same time," she says. "Having to make that choice frustrated me." Now in her George Brown classes she uses instructional technology, such as PowerPoint, strategically. She knows that when the lights go out and the PowerPoint goes on there is no eye contact and it's harder for her students pick up non-verbal cues from her – especially the few who start to nod off in the darkened classroom. "I minimize my use of PowerPoint," she says.

While some professors have made conscious choices to stick with lectures or time-tested chalk-and-talk classes, instructional technology (IT) is a growing feature of many George Brown classes. Professors are using wikis, blogs, simulations, gaming, and online communities to encourage student engagement and learning.

These tools, and how to use them effectively, are the topic of the Advancing Learning: This is IT (instructional technology) Conference, hosted by George Brown on May 20-22. More than 250 professors from across Ontario with gather to discuss the possibilities and problems of integrating new technology into college courses.

George Brown professors, who dominate the conference speakers list, include:

- Jim Kinney, who will speak on "Once Upon a Time we were teachers: The Student Experience Narrative as a Basis for Creating and Mapping Knowledge Objects".
- Aga Palalas and Maria Tchajkova, who will speak on "Effective Audio and Video Projects for Mobile Learning".
- Karen Hamilton and Camilla Wheeler, who will speak on "Web 2.0: Collaboration of Collusion?"
- Peter Burgess, who will speak on "A holistic approach to enhance student engagement in the classroom by leveraging technology."
- Jean-Paul Amore and Gerry Valentino, who will discuss the Eco Road Challenge project.
- Tom Supra, who will discuss "Strengthening Ties in the Student-centered Classroom".
- Lina Medaglia-Miller, who will discuss "Trash and the Ecological Footprint".
- Marilyn McLean, who will discuss "Creating Supportive Learning Communities for Online Educators".
- Sandra Neill and Vika Kravchyna, who will discuss "Three Dimensional Digital Learning Objects".
- Phillip Eng, who will discuss "Engaging Students in and out of the Classroom".
- Gordana Icevska, who will discuss "Turn up and New Site with Google Sites".
- Dorothy van Grootheest, who will discuss "Collaborative Communities: Using Technology to Enrich Language Teaching and Learning".

For more information about Advancing Learning: This is IT, go to
http://liad.georgebrown.ca/thisisit/Index.htm

Spring fashion: This floral dress with tulle underskirt, designed by Fashion Techniques and Design student Abby Cervantes, was one of the nods to spring that appeared in Signatures, the annual show of the college's School of Fashion Studies. The show, held at the Design Exchange on Bay St. in April, featured 110 garments created for the show.

High steppers get new sneaks

Staff who walk, run, or jog the most this summer will be able to trade in their old runners for a new pair of Adidas running shoes in the George Brown Summer Sneaker Challenge. Staff can get a free pedometer starting June 1 (the first 250 will also get a water bottle and reflector) to record their steps between June 15 and Aug. 24. The top 50 will get new shoes and the next 150 will get a 60 per cent discount on Adidas. For more info go to Staff Development on the website. The Challenge is sponsored by Staff Development. Athletics, Health and Safety, Adidas and Big Kahuna.

Office 2007 to be used in classes, labs starting this fall

George Brown is upgrading to Microsoft Office 2007 in classrooms, labs and learning centres for this fall – and offering staff training and a free copy of the software to get up to speed this summer.

The word processing, presentation, spreadsheet and database programs will be installed on computers used by students in classrooms, labs and learning centre over the summer – replacing Office 2003 versions. Office 2007 was launched in the fall of 2006 and, according to industry surveys, has been adopted by about half of all organizations – including the three other Metro colleges.

To make the transition as easy as possible, the college will hold training sessions for staff in late August, and is offering a free copy of the software – along with online tutorials – to each staff member to use at home. Staff can arrange to pick up Office 2007 on campus or have them mailed to their homes by ordering it online at www.georgebrown.ca/office2007 They can then install the program themselves on up to three computers at home or at work. The software will not work on Apple's operating system or on older PCs. System requirements are posted online.

The upgrading of computers used by students is the first step in converting all computers at the college to Office 2007 – a process that will be done department by department from Sept. 2009 to Sept. 2010.

George Brown is maintaining its current Microsoft computer operating system – Windows XP – and has no plans to move to the more recently released Vista operating system.

Staff survey aims to improve communication for staff

Do you like reading this newsletter? Would you prefer to get an online version of it by e-mail instead? Or would you like both?

These are just a few of the questions staff across the college are being asked in an online survey that aims to improve communication for staff at George Brown.

All staff have been sent an e-mail invitation to complete the online survey. If you didn't get an e-mail you can find a survey link on Insite. If you don't have access to Insite, or a computer, call Maryam Mirkhaef at 416-415-5000, ext. 6176 for a paper version of the survey. The survey will be online until May 22.

President Anne Sado

With the 08-09 fiscal and academic year behind us, we can set our sights on looking forward to 09-10, despite the uncertainties we all still face as the economy adjusts and strives for a more stable and predictable equilibrium.

In last November's column, I wrote about the implications of the economic situation for George Brown College, and the degree of uncertainty in the near term with respect to the development of a new college funding formula for 09-10 and beyond. Most importantly, I stated that demand for our programs will only grow, and that GBC, with the rest of Ontario's colleges, will play an increasingly important role as part of the solution for economic recovery.

In March of this year, I was pleased that this fact was affirmed by the provincial government, which made a number of broad funding commitments for colleges and universities as part of the Budget. The province's choice of making such a significant investment in education at this time is an unmistakable recognition of the importance of producing stronger, more highly-skilled graduates who will contribute to its future economic prosperity.

Though specific initiatives enabled by this new funding are still in the process of being finalized at this time, broad areas to which the funds will be directed have been determined. These are:

- Continued growth in base operating funding – though not at the original level of the five year Reaching Higher plan, and not at the level of our base cost increases
- $780 million in new capital funding for colleges and universities over 2 years (this is intended to match infrastructure funding provided for in the Federal Budget).
- Additional investments for skills training and literacy initiatives, which means continued support for initiatives such as Colleges Integrating Immigrants to Employment (CIITE), expansion of literacy and basic skills training, and development of a Green Jobs Skills Strategy
- Investment of $10 million over 3 years for Colleges Ontario Network for Industry Innovation (CONII).

We have made our infrastructure submission to the federal government and we are awaiting a decision, hopefully by the end of May.

Regardless of how the economic situation unfolds in the short term, investing in all of these areas will extend the College's ability to support our diverse student population in becoming the workplace-ready graduates required by an ever-changing, challenging labour market.

For 09-10 our college will continue to invest in the Academic Strategy. We will invest a significant portion of our discretionary "strategic" funding in support of this commitment. We will continue to invest in our technology infrastructure capability – so we have the flexibility to support our staff and students with the right technology for the future. We will continue to invest in people, funding the staff development initiatives most critical to our needs.

We, as GBC employees, should feel quite fortunate for the secure and important role we have to play during these uncertain times. But good fortune in this case comes with the responsibility of fulfilling our end of the bargain by asserting a greater role in the province's future, while ensuring the highest standards in delivering on our promise to students.

Aboriginal students get drum: (From left) Aboriginal elder Pauline Shirt, General Education and Access Dean Georgia Quartaro, and Aboriginal Student Counsellor Lori Budge display a drum given to the new Aboriginal Student Association – Sahkitcheway – in early April. The Alberta-made drum will be used by a student drumming group. Drumming is an important part of aboriginal culture, social life and spirituality, says Shirt. "It's the heartbeat of mother earth and our connection to our mothers." The drum, a gift of Sabrina Redwing Saunders and Michael Saunders, was presented at a college sponsored aboriginal community gathering that attracted more than 300 people. The event was organized by the college's aboriginal students and the staff who work with them in the Centre for Preparatory and Liberal Studies. It was supported by funding from the Student Association and the Government of Ontario.

GREEN SPOT

Have you noticed the new grey recycling bins in the hallways? They're an important part of the College's plans for a new recycling system, which also includes getting garbage and cardboard compactors that will make it easier for custodial staff to maintain an orderly receiving dock area. Cleaning staff are also getting new carts for separating garbage and recycling. The bins will soon have new signs that will make it easier to know what goes where: garbage, paper and cans/plastic/glass. Dave Rideout, Director of Facilities Management explains, "Establishing a clear communications program about the bins is an important element of what will make our new recycling system a success. The Facilities Management Department is committed to working with the College community as we work towards our goal of achieving a 70 per cent recycling rate. But everyone has a role to play in making this happen by developing conscientious recycling habits." If you have any questions or suggestions to make about the College's recycling program, please contact Anthony Scarlato at asarclat@georgebrown.ca

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George Brown College at 200 King St. East, Room 542E, Toronto, ON M5T 2T9
Editor: Story ideas? Contact Editor Neil McGillivray at nmcgilli@georgebrown.ca

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25% Post-Consumer Waste

Make it happen.